

CLAIMS

1. A safety monitoring device in a station platform, the safety monitoring device being characterized by including image processing means for picking up a platform edge  
5 through a plurality of stereo cameras at the platform edge on the railroad-track side of a station and generating image information based on a picked-up image in the view field and distance information based on the coordinate system of the platform per stereo camera, means for recognizing an object  
10. based on distance information and image information transmitted from each of the stereo cameras, and means for confirming safety according to the state of the recognized object.

2. The safety monitoring device in the station platform  
15 according to Claim 1, the safety monitoring device being characterized by further providing means for obtaining and maintaining the log of a flow line of a person in a space such as the platform.

3. The safety monitoring device in the station platform  
20 according to Claim 1, the safety monitoring device being characterized in that the means for recognizing the object based on the distance information and the image information transmitted from each of the stereo cameras performs recognition using a higher-order local autocorrelation  
25 characteristic.

4. The safety monitoring device in the station platform according to Claim 1, the safety monitoring device being characterized in that the means for recognizing the object based on said distance information and image information  
5 discerner between a person and other things from barycenter information on a plurality of masks at various heights.

5. The safety monitoring device in the station platform according to Claim 1, the safety monitoring device being characterized in that the means for confirming the safety  
10 obtains said distance information and image information of the platform edge, detects image information of railroad-track area information, recognizes the fall of a person or the protrusion of a person or the like toward outside the platform according to the distance information of the image  
15 information, and issues a warning.

6. The safety monitoring device in the station platform according to Claim 1, the safety monitoring device being characterized in that said higher-order local autocorrelation characteristic is used for determining ahead  
20 and behind time-series distance information existing at predetermined positions in a predetermined area, as one and the same person.

7. The safety monitoring device in the station platform according to Claim 6, the safety monitoring device being  
25 characterized in that the predetermined positions correspond

to a plurality of blocks obtained by dividing the  
predetermined area, and a next search for the time-series  
distance information is performed by calculating the higher-  
order local autocorrelation characteristic per at least two  
5 blocks of said plurality of blocks.